



## Bethpage Water Responds to Newsday Radium Article

### Board of Commissioners address Radium concerns

Dear Bethpage Water District Residents,

As was reported today in Newsday, the Bethpage Water District Board of Commissioners has taken proactive precautionary measures and shut down one of its drinking water supply wells to investigate higher than usual levels of Radium.

On behalf of the Bethpage Water District, we would like to inform our customers that our drinking water has been and continues to be safe with which to drink, wash, cook and bathe.

The level of Radium in the untreated well water from Well 4-1 was detected at 5.87 pCi/L in January, and the District voluntarily removed the well from production as a precautionary measure. Additionally, Well 4-2 is being continuously monitored as it has been found to be well below the drinking water standard but is located in close proximity to Well 4-1. Well 4-2's production has been limited as it is being monitored. The State and Federal standards for Radium in drinking water are 5 picocuries per liter based on a running four quarter average of water quality tests. The treated drinking water continues to be well within the drinking water standard.

We are here to reassure you that the District water supply remains in compliance with the standards for Radium and we have initiated more rigorous monthly monitoring at Plant 4 to track the levels of Radium and ensure no impact to public health. Please feel free to reach out to us at any time by calling the Bethpage Water District at 516-931-0093 or visit our website at [www.bethpagewater.org](http://www.bethpagewater.org)

Sincerely,

The Board of Bethpage Water District Commissioners

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#### Administrative Office:

25 Adams Avenue, Bethpage, NY 11714

Phone: (516) 931-0093

Fax: (516) 931-0066

# Table Of Detected Parameters

Contaminants	Violation (Yes/No)	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
<b>Inorganic Contaminants</b>							
Copper	No	Sept. 2011	ND - 0.16 <sup>(1)</sup>	ug/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	Sept. 2011	ND - 4.9 <sup>(1)</sup>	mg/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	No	07/20/12	ND - 0.01	mg/l	n/a	MCL = 20	Naturally occurring
Sodium	No	12/05/12	3.6 - 20.7	mg/l	n/a	No MCL <sup>(2)</sup>	Naturally occurring
Zinc	No	05/04/12	ND - 0.1	mg/l	n/a	MCL = 5	Naturally occurring
Chloride	No	07/20/12	4.8 - 20.1	mg/l	n/a	MCL = 250	Naturally occurring
Iron	No	05/10/12	ND - 50	ug/l	n/a	MCL = 300 <sup>(3)</sup>	Naturally occurring
Nitrate	No	08/09/12	0.2 - 5.2	mg/l	10	MCL = 10	Runoff from fertilizer and leaching from septic tanks and sewage
Sulfate	No	05/14/12	ND - 5.1	mg/l	n/a	MCL = 250	Naturally occurring
Magnesium	No	05/10/12	0.5 - 1.8	mg/l	n/a	None	Naturally occurring
Calcium	No	05/10/12	0.9 - 5.1	mg/l	n/a	None	Naturally occurring
Nickel	No	07/20/12	0.001 - 0.004	mg/l	n/a	MCL = 0.1	Naturally occurring
<b>Volatile Organic Contaminants</b>							
1,1-Dichloroethane	No	09/06/12	ND - 0.7	ug/l	0	MCL = 5	Industrial Commercial/Discharge
<b>Unregulated Contaminants</b>							
Perchlorate	No	12/17/12	ND - 10.7	ug/l	n/a	None <sup>(4)</sup>	Fertilizers
<b>Synthetic Organic Contaminants Including Pesticides and Herbicides</b>							
None Detected	—	—	ND	—	—	—	—
<b>Radionuclides</b>							
Gross Alpha	No	08/14/12	ND - 6.85	pCi/L	—	MCL = 15	Naturally occurring
Gross Beta	No	08/14/12	ND - 3.41	pCi/L	—	MCL = 50	Naturally occurring
Radium 226	No	08/14/12	ND - 3.62	pCi/L	—	MCL =	Naturally occurring
Radium 228	No	08/14/12	0.596 - 2.18	pCi/L	—	NO MCL	Naturally occurring
Total Uranium	No	08/14/12	ND - 0.101	ug/l		MCL = 30	Naturally occurring

**Definitions:**

**Maximum Contaminant Level (MCL)** - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

**Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Milligrams per liter (mg/l)** - Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Micrograms per liter (ug/l)** - Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

**Non-Detects (ND)** - Laboratory analysis indicates that the constituent is not present.

**pCi/L** - pico Curies per Liter is a measure of radioactivity in water.

<sup>(1)</sup> - During 2011, we collected and analyzed 30 samples for lead and copper. The 90th percentile level is presented in the table. The action levels for both lead and copper were not exceeded at any site tested.

<sup>(2)</sup> - No MCL has been established for sodium. However, 20 mg/l is a recommended guideline for people on high restricted sodium diets and 270 mg/l for those on moderate sodium diets.

<sup>(3)</sup> - Iron is only a secondary water standard. Iron has no health effects. Therefore, exceeding the MCL represents a level at which adverse aesthetics effects start to occur.

<sup>(4)</sup> - Perchlorate is an unregulated contaminant. However, the State Health Department has established an action level of 18 ug/l.

**NEW YORK**  
*state department of*  
**HEALTH**

Nirav R. Shah, M.D. M.P.H.  
Commissioner

Sue Kelly  
Executive Deputy Commissioner

June 25, 2013

Ethan D. Irwin  
ethanirwin1@gmail.com

FOIL #: 13-05-448

Dear Mr. Irwin:

This letter responds to your Freedom of Information Law request of 5/30/2013, in which you requested water testing results for the Levittown & Bethpage water districts pertaining to all Radionuclides. I have enclosed documents responsive to your request.

However, please note the State database (SDWIS) only contains Radionuclide sample results for Bethpage WD for the year 2006. The Bureau of Water Supply Protection advises that you contact the Nassau County Health Department for Radionuclide sample results for Levittown WD and/or additional sample results for Bethpage WD.

Should you feel that you have been unlawfully denied access to records, you may appeal such denial in writing within 30 days to the Records Access Appeals Officer, Division of Legal Affairs, Empire State Plaza, 2438 Corning Tower, Albany, New York, 12237-0026.

If you require additional information or wish to discuss this matter further, please do not hesitate to contact me at (518) 474-8734.

Sincerely,

  
James P. O'Hare  
Records Access Office

From: Ethan Irwin <ethanirwin1@gmail.com>

Date: Thu, May 30, 2013 at 8:38 AM

Subject: Bethpage & Levittown Water Districts FOIL Request

To: [foil@health.state.ny.us](mailto:foil@health.state.ny.us)

Dear sir/madam:

Please allow this correspondence to serve as my FOIL request for the following documents: copies of any and all water testing results, in whatever form, for the Levittown and Bethpage water districts pertaining to testing for all radionuclides, from 1970 to the present. Please notify me by email or telephone of the cost for producing these documents and I will forward the reimbursement.

Thank you.

Yours,

Ethan D. Irwin, Esq.

631-948-0753

**Table A: EXCERPTS From NYSDOH FOIL RESPONSE #: 13-05-448 (6/25/13) Show Dozens of SDWA Violations Including:  
No Required Test Results for (a) PHOTON Activity, (b) Radium-226, (c) Uranium, (d) BETA Activity & (e) Dose Calculations in mrem/yr**

SAMPLE_POINT_ID_CODE	COLLECTION_ENDT_DT	FACILITY_NAME	ANALYTE	CONCENTRATION	CONCENTRATION_UOM	MCL for Radium-226 + Radium-228 = 5 PCI/L
1. N-06915	2/2/2006	WELL 4-1	RADIUM-226	2.02	PCI/L	
2. "	2/2/2006	"	RADIUM-228	1.72	PCI/L	3.74
3. "	2/2/2006	"	GROSS BETA PARTICLE ACTIVITY	5.56	PCI/L	No Photon
4. "	2/2/2006	"	GROSS ALPHA PARTICLE ACTIVITY	7.35	PCI/L	
5. "	5/9/2006	"	RADIUM-226	3.61	PCI/L	
6. "	5/9/2006	"	RADIUM-228	1.94	PCI/L	5.55
7. "	5/9/2006	"	GROSS ALPHA PARTICLE ACTIVITY	5.82	PCI/L	No Beta/Photon
8. "	7/27/2006	"	RADIUM-226	3.51	PCI/L	
9. "	7/27/2006	"	RADIUM-228	1.11	PCI/L	4.62
10. "	7/27/2006	"	GROSS ALPHA PARTICLE ACTIVITY	9.44	PCI/L	No Beta/Photon
11. "	10/30/2006	"	RADIUM-226	3.61	PCI/L	
12. "	10/30/2006	"	RADIUM-228	1.19	PCI/L	4.80
13. "	10/30/2006	"	GROSS ALPHA PARTICLE ACTIVITY	10.7	PCI/L	No Beta/Photon
14. N-06916	2/2/2006	WELL 4-2	RADIUM-228	1.69	PCI/L	No Radium-226
15. "	2/2/2006	"	GROSS BETA PARTICLE ACTIVITY	2.43	PCI/L	No Photon
16. "	2/2/2006	"	GROSS ALPHA PARTICLE ACTIVITY	4.09	PCI/L	
17. "	5/9/2006	"	RADIUM-228	1.46	PCI/L	No Radium-226
18. "	5/9/2006	"	GROSS ALPHA PARTICLE ACTIVITY	2.79	PCI/L	No Beta/Photon
19. "	7/27/2006	"	RADIUM-228	0.84	PCI/L	No Radium-226
20. "	7/27/2006	"	GROSS ALPHA PARTICLE ACTIVITY	3.52	PCI/L	No Beta/Photon
21. "	10/30/2006	"	RADIUM-226	0.76	PCI/L	
22. "	10/30/2006	"	RADIUM-228	0.86	PCI/L	1.12
23. "	10/30/2006	"	GROSS ALPHA PARTICLE ACTIVITY	5.64	PCI/L	No Beta/Photon
24. N-08004	2/15/2006	WELL 5-1	RADIUM-228	0.46	PCI/L	No Radium-226
25. "	2/15/2006	"	GROSS BETA PARTICLE ACTIVITY	0.62	PCI/L	

**TOWN OF HEMPSTEAD DEPARTMENT OF WATER**  
**ANNUAL SUMMARY REPORT FROM DISTRIBUTION SYSTEM SERVING THE BOWLING GREEN ESTATES,**  
**EAST MEADOW, LEVITTOWN, ROOSEVELT FIELD AND UNIONDALE WATER DISTRICTS**  
**FOR THE YEAR 2012**

FOR THE YEAR 2012							
LEAD AND COPPER (SAMPLES COLLECTED FROM 58 HOMES)	VIOLATION	DATE OF MAX SAMPLE	RANGE	90% VALUE	MCLG	ACTION LEVEL	LIKELY SOURCE OF CONTAMINANT
COPPER	NO	JUNE-JULY 2011	ND-0.21 (mg/l)	0.13	1.3	1.3	Corrosion of galvanized pipes. Erosion of natural deposits.
LEAD	NO	JUNE-JULY 2011	ND-0.024 (mg/l)	0.003	0	0.015	Corrosion of household plumbing systems. Erosion of natural deposits.
CONTAMINANT	VIOLATION	DATE OF MAX SAMPLE	RANGE	UNITS	MCLG	MCL	LIKELY SOURCE OF CONTAMINANT
Physical Characteristics and Inorganics							
PERCHLORATE <sup>2</sup>	NO	02/10/12	ND-6.2	ug/l	N/A	Action Level=18	Oxygen additive in solid fuel propellant for rockets, missiles, and fireworks.
NITRATE	NO	08/08/12	ND-7.4	mg/l	10.0	10.0	Erosion of natural deposits. Runoff from fertilizers and septic tanks.
IRON	NO	05/16/12	ND-0.418	mg/l	N/A	0.3	Naturally occurring.
SODIUM	NO	02/29/12	5.9-14.4	mg/l	N/A	NDL	Naturally occurring.
CHLORIDE	NO	08/08/12	5.8-20.4	mg/l	N/A	250	Naturally occurring.
LANGLIERS INDEX	NO	11/26/12	-0.99 to -2.02	mg/l	N/A	NDL	N/A
TOTAL ALKALINITY	NO	02/29/12	5-53	mg/l	N/A	NDL	N/A
TOTAL HARDNESS	NO	02/29/12	10-66	mg/l	N/A	NDL	N/A
CALCIUM HARDNESS	NO	02/29/12	6-58	mg/l	N/A	NDL	N/A
pH	NO	08/20/12	6.6-8.4	UNITS	N/A	7.5-8.5 <sup>3</sup>	N/A
TOTAL DISSOLVED SOLIDS	NO	06/06/12	50-149	mg/l	N/A	NDL	N/A
Radiological							
Gross alpha <sup>2</sup>	NO	02/28/11	ND-4.8	pCi/L	0	15	Erosion of natural deposits.
Combined Radium-226 and 228 <sup>2</sup>	NO	02/15/11	1.2-3.5 <sup>1</sup>	pCi/L	0	5 <sup>1</sup>	Erosion of natural deposits.
Principal Organic Contaminants							
1,1Dichloroethane	NO	01/03/12	ND-1.0	ug/l	N/A	5	Released into the environment as fugitive emissions and in wastewater during production and use as a chemical intermediate solvent.
Trichloroethylene	NO	11/12/12	ND-1.1	ug/l	N/A	5	Discharge from metal degreasing sites and other factories
Disinfection By-Products							
Bromodichloromethane	NO	09/26/12	ND-4.3	ug/l	N/A	50	By-product of drinking water chlorination needed to kill harmful organisms that form when source water contains large amounts of organic matter.
Bromoform		09/26/12	ND-3.8				
Chloroform		09/26/12	ND-2.9				
Dibromochloromethane		09/26/12	ND-5.8				
DISINFECTANTS							
CHLORINE	NO	06/19/12	0.20-1.34	mg/l	MRDLG 4.0	MRDL 4.0	Water additive used to control microbes.

**CODE:** MCL - THE HIGHEST LEVEL OF CONTAMINANT ALLOWED IN DRINKING WATER

MCLG - THE LEVEL OF A CONTAMINANT IN DRINKING WATER BELOW WHICH THERE IS NO KNOWN OR EXPECTED RISK TO HEALTH

NDL - NO DESIGNATED LIMIT

ND - NOT DETECTED

mg/l - MILLIGRAMS PER LITER OR PARTS PER MILLION

ug/l - MICROGRAMS PER LITER OR PARTS PER BILLION

pCi/L - PICOCURIES PER LITER

MRDLG - MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL

MRDL - MAXIMUM RESIDUAL DISINFECTANT LEVEL

N/A - NOT AVAILABLE

Action level - The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

**FOOTNOTES**

<sup>1</sup>-An MCL violation occurs when the annual composite of four quarterly samples or the average of the analysis of four quarterly samples exceeds the MCL.

<sup>2</sup>-Results are from raw source water.

<sup>3</sup>-Nassau County Department of Health guideline.